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(58) Field of search

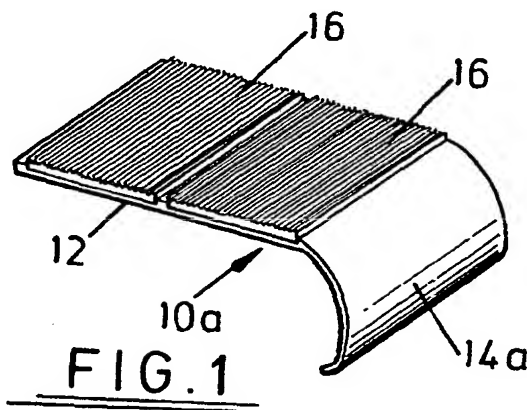
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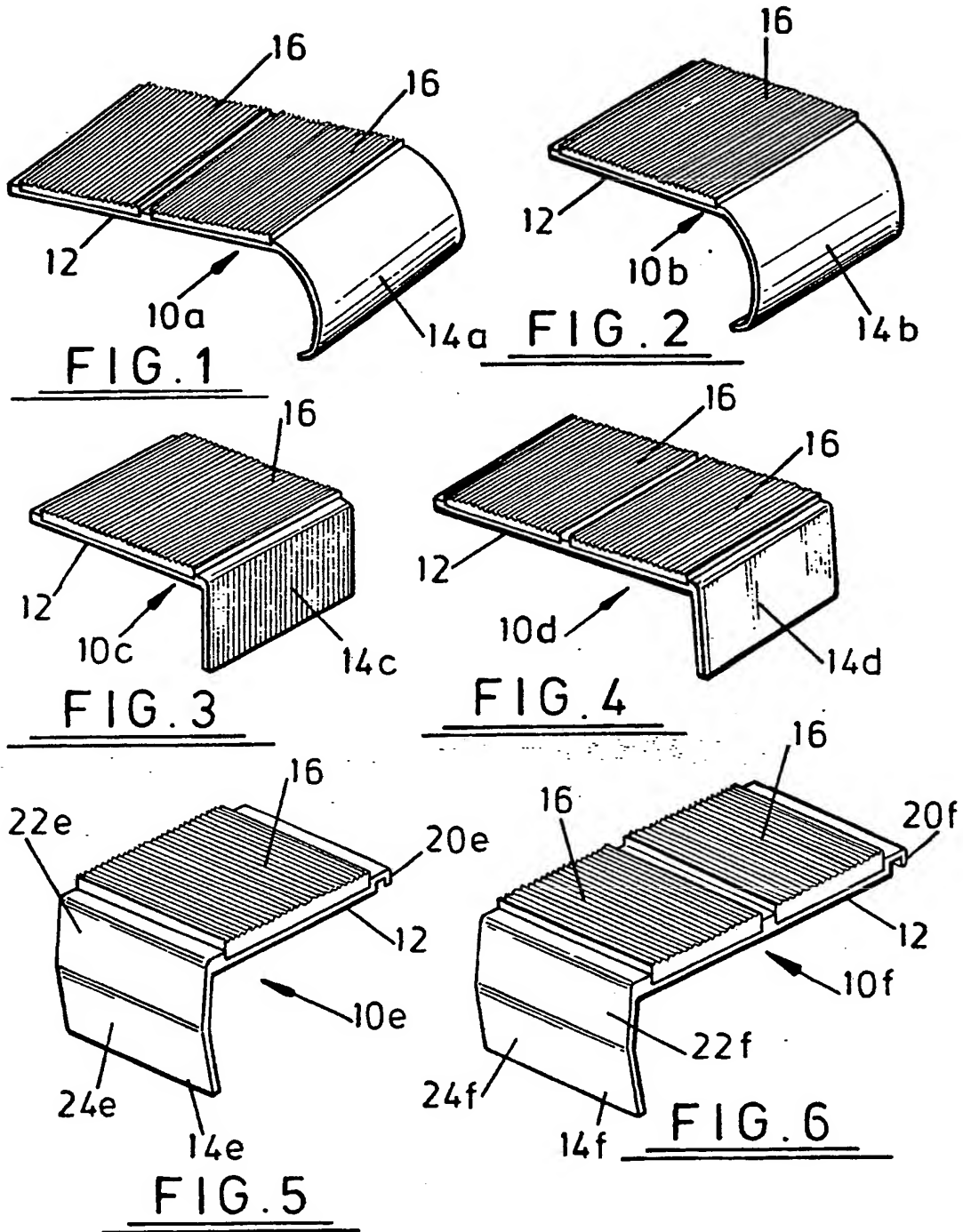
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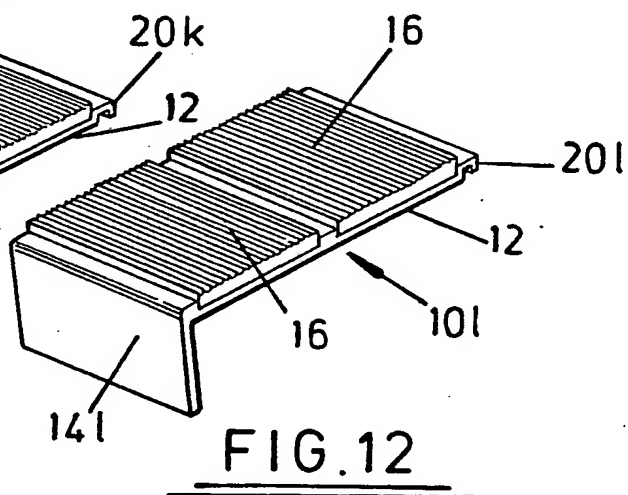
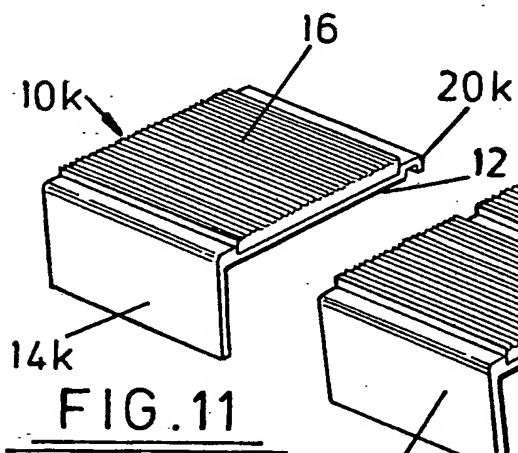
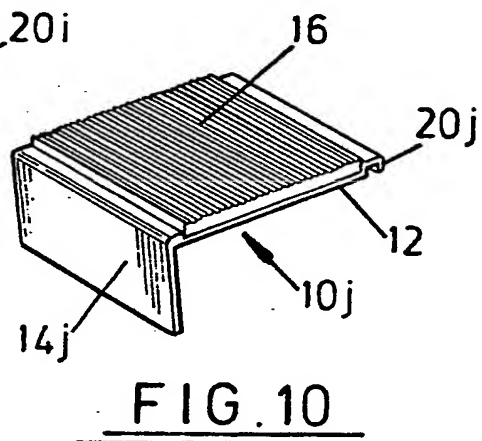
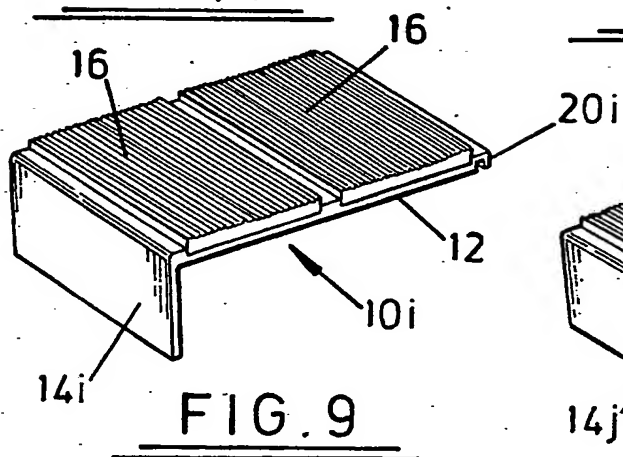
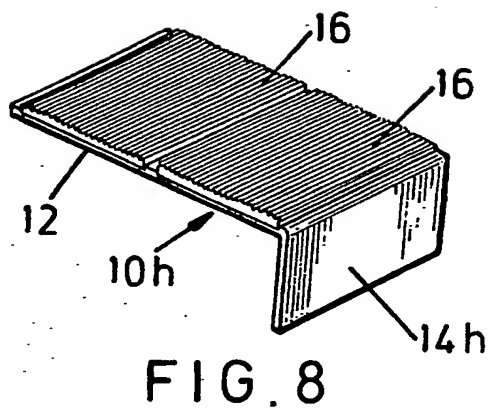
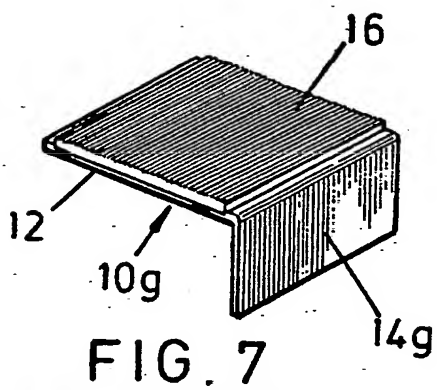
(54) **Stair or step nosings**

(57) A stair nosing (10a) comprises an overlay (16) of phosphorescent material. The nosing may include an aluminium extrusion 12 with one or more indentations to receive the overlay. The overlay may be of polyvinyl chloride and preferably has a ribbed surface.



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Title: Improvements in and relating to stair or step nosings

DESCRIPTION

5 This invention concerns improvements in and relating to stair or step nosings.

Stair or step nosings for protection of stairs and for safety purposes, ie. to prevent slipping on stairs, are available comprising a metal profile that fits over the leading edge of a step the intended upper
10 surface of said profile being provided with a non-slip surface, for example, a ribbed plastics insert or overlay. Such inserts or overlays must be of a suitable hardness to withstand undue wear and tear. Other physical properties may also be desirable.

15 There are difficulties associated with negotiating stairs and steps in badly lit or unlit locations as the height of the step up may be difficult to judge. The problem also exists, of course, for persons of poor eyesight.

20 Illuminated stair nosings are known but these require electrical wiring etc. which can be hazardous particularly if the stairs or steps should become wet.

Also, such nosings have the disadvantage that light bulbs may need to be replaced from time to time, which is inconvenient, and there may be occasions when a particular nosing remains unlit for a period of time.

5 It is to these problems that the present invention is particularly, but not exclusively, directed.

One object of the invention is to provide a stair nosing that is visible in dark or dimly lit locations.

10 Another aspect of the invention is to provide a stair nosing that has an attractive appearance.

These objects may be achieved in accordance with the present invention by a stair nosing having a part or parts thereof that are phosphorescent.

15 In a preferred embodiment of the invention a stair nosing is provided with an insert or overlay of phosphorescent material. In particular, it is proposed that plastics inserts or overlays for stair nosings be treated to ^{be} phosphorescent or be formed from
20 phosphorescent material. For example, an insert or overlay for a stair nosing, particularly of the profiled type that fits over the leading edge of a step, be formed of polyvinyl chloride that is treated to be phosphorescent or is blended with a
25 phosphorescent substance.

The inserts or overlays will preferably be provided with a relatively non-slip surface such as may be provided by ribbing thereon or some other regular or irregular profiled pattern.

5 Preferred stair nosings of the invention will comprise a metal, preferably aluminium or alloy, profile, generally L-shaped, with one or more inserts for indentations therein of phosphorescent polyvinyl chloride.

10 The type of polyvinyl chloride chosen for that purpose will preferably have certain desirable properties in order to be hardwearing and also so that it exhibits minimal shrinkage.

A phosphorescent polyvinyl chloride compound
15 having the following approximate properties may be suitable for stair nosings according to the invention:

	Specific Gravity	1.27
	British Softness Standard	28
	Shore A Hardness	84
20	Tensile Strength	18.5 MN/M ²
	Elongation at Break	325%
	Modulus at 100% Extension	11.9 MN/M ²
	Cold Flex Temperature	-7°C

It is also desirable that the compound does not
25 support combustion.

Examples of suitable phosphorescent substances for use particularly in polyvinyl chloride include those sold under the trade mark LUMILUX.

5 The inserts or overlays for stair nosings of the invention may be bonded to the nosings in any suitable way. For example, a suitable adhesive may be used or double-sided adhesive tape.

10 The stair nosing of the invention will enhance safety measures by being visible in dark or dimly lit areas but will also have an attractive appearance for use in places that are generally dimly lit, such as discos and clubs.

15 The invention will now be further described, by way of example only, with reference to the accompanying drawings, in which:-

Figures 1 to 12 show a variety of stair nosings embodying the present invention.

20 In each of Figures 1 to 12 of the accompanying drawings, a stair nosing is shown made from a profiled aluminium extrusion 10a, b, c, d, e, f, g, h, i, j, k and l respectively of generally L-section to provide a top face 12 and a leading face 14 the top face 12 having bonded thereto one or more phosphorescent polyvinyl chloride inserts 16. The inserts themselves
25 have a ribbed upper surface 18 for grip.

In Figures 1, 4, 6, 8, 9 and 12 are shown stair nosings each having two parallel inserts 16 and in Figures 2, 3, 5, 7, 10 and 11 the stair nosings shown have only one insert 16.

5 The nosings of Figures 1 to 4, 7 and 8 are generally lightweight compared to the nosings shown in the other Figures. The main differences are that the lightweight nosings have a thinner aluminium profile than the heavier nosings which also have an inserted
10 channel section end portion 20. In addition, the inserts are thinner in Figures 1 to 4 and 7 and 8 than in the nosings of the other Figures.

In each nosing the inserts 16 are bonded in indentations of the top face 12 of the profiles 10.

15 The different types of nosings illustrated are only a selection of the nosings possible in accordance with the invention. In each of Figures 1 and 2 the nosing has a curved leading face 14a and b respectively. In each of Figures 3 and 4 and 11 and 12
20 the leading face 14c, d, k and l respectively is flat and perpendicular to the top face. In each of Figures 5 and 6, the leading face 14e and f respectively has two facets 22, 24 inclined slightly relative to each other. In each of Figures 7, 8, 9 and 10 the leading
25 face 14g, h, i and j respectively is inclined

rearwardly relative to a step by about 7° from the vertical.

CLAIMS

1. A stair nosing having an overlay that is phosphorescent.
2. A stair nosing as claimed in claim 1, wherein the
5 overlay is made of phosphorescent material.
3. A stair nosing as claimed in claim 1, wherein the overlay is treated to be phosphorescent.
4. A stair nosing as claimed in claim 1, 2 or 3, wherein the overlay is of plastics material.
- 10 5. A stair nosing as claimed in claim 4, wherein the overlay comprises polyvinyl chloride.
6. A stair nosing as claimed in any one of claims 1 to 5, wherein the overlay is provided with a relatively non-slip surface.
- 15 7. A stair nosing as claimed in claim 6, wherein the overlay is ribbed.
8. A stair nosing as claimed in any one of claims 1 to 7, of generally L-section and having one or more indentations in an intended upper surface thereof, said
20 indentations containing one or more of said overlays.
9. A stair nosing as claimed in any one of claims 1 to 8 comprising an aluminium extrusion.
10. A stair nosing as claimed in any one of claims 1 to 9, wherein the overlays are bonded to the nosings by
25 means of adhesive.

11. A stair nosing substantially as hereinbefore described with reference to and as illustrated in any one of the accompanying drawings.